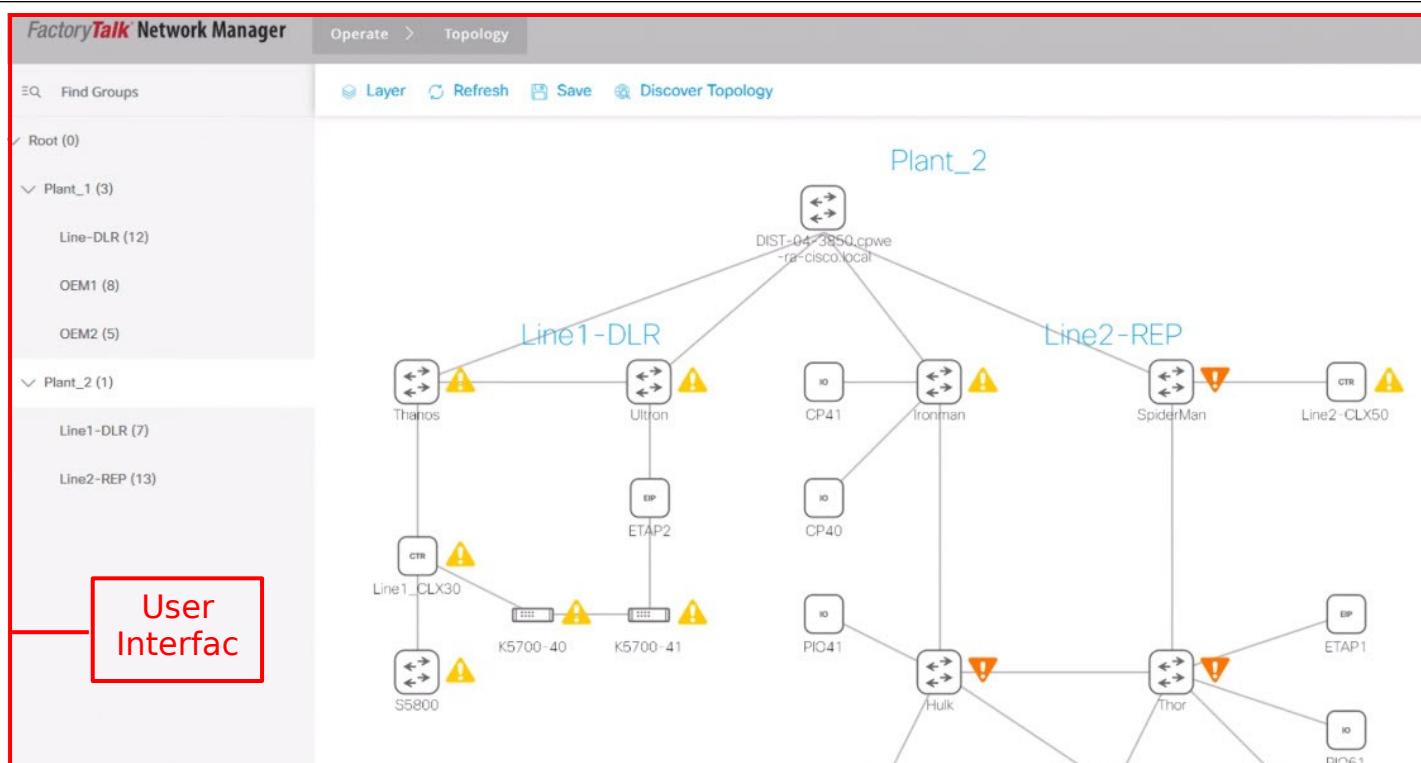


# Exhibit 2

**U.S. Patent No. 6,978,301 V. Rockwell Automation**

## 1. Claim Chart

Claim	Analysis
<p>[1.P] A method for communicating with a network device, the method comprising the steps of:</p>	<p>Rockwell Automation (“Defendant”) performs and/or induces others to perform a method for communicating with a network device.</p> <p>This element is infringed literally, or in the alternative, under the doctrine of equivalents.</p> <p>For example, Defendant provides FactoryTalk Network Manager which monitors, configures, and troubleshoots the devices such as switches (“network device”) connected in a network. FactoryTalk Network Manager provides a user interface for an admin to implement device configurations for the devices connected to the network.</p> <p><b>Get a Better View of What is Happening in Your Facility</b></p> <div style="border: 2px solid red; padding: 10px;"> <p>FactoryTalk Network Manager software helps to achieve increased network visibility, easier troubleshooting, and simplified configuration and maintenance. Get insight into your network operations by getting a closer look at your devices connected in your manufacturing environment.</p> </div> <p>Source: <a href="https://www.rockwellautomation.com/en-us/products/software/factorytalk/maintenancesuite/network-manager.html">https://www.rockwellautomation.com/en-us/products/software/factorytalk/maintenancesuite/network-manager.html</a></p>



Source: [https://www.youtube.com/watch?v=QeFxDecn8ZM&list=PL3K\\_BigUXJ1Mf-1cAfwwMsHnrEwJGmFGZ&index=2](https://www.youtube.com/watch?v=QeFxDecn8ZM&list=PL3K_BigUXJ1Mf-1cAfwwMsHnrEwJGmFGZ&index=2) (annotated)

## Easier Troubleshooting

Having the right tools that can collect diagnostic data from devices and generate reports that can be easily understood and analyzed is becoming more critical in automation networks. FactoryTalk Network Manager consolidates network status in a single place, increasing insight and greatly simplifying troubleshooting in fault conditions.

Source: <https://www.rockwellautomation.com/en-us/products/software/factorytalk/maintenancesuite/network-manager.html>

	<h2>Simple Configuration and Maintenance</h2> <p>FactoryTalk Network Manager can help you simplify network maintenance and support, increasing productivity and reducing downtime. This software provides easy to use tools to archive, compare and restore switch configurations and performs firmware upgrades from a centralized location allowing for efficient management of network devices.</p> <p>Source: <a href="https://www.rockwellautomation.com/en-us/products/software/factorytalk/maintenancesuite/network-manager.html">https://www.rockwellautomation.com/en-us/products/software/factorytalk/maintenancesuite/network-manager.html</a></p> <p>Further, to the extent this element is performed at least in part by Defendant's software source code, Plaintiff shall supplement these contentions pursuant to production of such source code by the Defendant.</p>
[1.1] receiving a network device identifier, the network device identifier corresponding to the network device;	<p>Defendant performs and/or induces others to perform the step of receiving a network device identifier, the network device identifier corresponding to the network device.</p> <p>This element is infringed literally, or in the alternative, under the doctrine of equivalents.</p> <p>For example, FactoryTalk Network Manager receives the device information such as name and Product ID ("network device identifier") corresponding to a network device (such as a switch).</p>

FactoryTalk Network Manager

Maintain > Software Images

< Back to Software Image      Install Software Image

DEVICE FILTER      REVIEW DEVICES

Software Version 15.2(7)E2

Group: Plant\_1      Tags: Enter or select tags

5 Devices(s)

Name	IP Address	State	Vendor	Product ID	Group	Software Version	Tags	Action
Line-SW2	10.17.62.12	Licensed	Rockwell Automation/Allen-Bradley	1783-BMS10CGP	Root > Plant_2 > Line-DLR	15.2(7)E1a	<a href="#">+</a>	Upgrade
Line-SW3	10.17.62.13	Licensed	Rockwell Automation/Allen-Bradley	1783-BMS20CGP	Root > Plant_2 > Line-DLR	15.2(7)E1a	<a href="#">+</a>	Upgrade
OEM1-5700	10.17.60.11	Licensed	Rockwell Automation/Allen-Bradley	1783-BMS06SGA	Root > Plant_2 > OEM1	15.2(7)E1a	<a href="#">+</a>	Upgrade
OEM2-NAT	10.17.61.11	Licensed	Rockwell Automation/Allen-Bradley	1783-ZMS8T8E2TGN	Root > Plant_2 > OEM2	15.2(7)E1a	<a href="#">+</a>	Upgrade
OEM2-SW12	10.17.61.12	Licensed	Rockwell Automation/Allen-Bradley	1783-ZMS4T4E2TGP	Root > Plant_2 > OEM2	15.2(7)E1a	<a href="#">+</a>	Upgrade

Source: [https://www.youtube.com/watch?v=9wzmRvc0OWk&list=PL3K\\_BigUXJ1Mf-1cAfwwMsHnrEwJGmFGZ&index=7](https://www.youtube.com/watch?v=9wzmRvc0OWk&list=PL3K_BigUXJ1Mf-1cAfwwMsHnrEwJGmFGZ&index=7); at 0:37 (annotated)

Further, to the extent this element is performed at least in part by Defendant's software source code, Plaintiff shall supplement these contentions pursuant to production of such source code by the Defendant.

[1.2] retrieving a command-format

Defendant performs and/or induces others to perform the step of retrieving a command-format template from a repository containing a plurality of command-format

<p>template from a repository containing a plurality of command-format templates, wherein the command-format template indicates how to construct a device-specific command for the network device and includes an attribute field;</p>	<p>templates, wherein the command-format template indicates how to construct a device-specific command for the network device and includes an attribute field. This element is infringed literally, or in the alternative, under the doctrine of equivalents.</p> <p>For example, FactoryTalk Network Manager comprises a ‘Plug and Play’ feature which is used to provision and configure multiple network devices such as switches. The ‘Plug and Play’ feature uses configuration templates (“command format template”) stored in FactoryTalk Network Manager servers (“repository”) to create specific configurations for the particular network devices.</p> <p>Further, the configuration templates comprise variables (“attribute fields”) such as SUBNET_MASK, GATEWAY, and NATIVE_VCLAN_ID which are updated according to the network device that is to be provisioned. Upon information and belief, the templates indicate how to construct device-specific commands based on the defined variables.</p>
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The screenshot shows the FactoryTalk Network Manager interface. At the top, there's a navigation bar with tabs for 'Design', 'Operate', 'Maintain', and 'Settings'. Below this is a 'Plug and Play' section, which is highlighted with a red box. The main content area has a title 'FactoryTalk Network Manager' with a 'Operate > Dashboard' breadcrumb. On the left, there's a 'Groups' sidebar with a tree view: 'Root (0)' (selected), 'Demo (6)', and 'Plant\_1 (2)' which contains 'Line-DLR (12)', 'OEM1 (7)', and 'OEM2 (11)'. To the right, there's an 'Alarms' section showing '5 alarms' with three levels: CRITICAL (0), MAJOR (1), and MINOR (4). Below the alarms is a chart titled 'Affected Devices' with two bars: 'Controller' (2) and '10'. A large red box highlights the text 'switches following a standard configuration template'.

switches following a standard configuration template

Source: <https://www.youtube.com/watch?v=9wzmRvc0OWk&t=188s>, at 03:00

The screenshot shows the FactoryTalk Network Manager interface. On the left is a vertical sidebar with icons for Inventory, Undiscovered Devices, Profiles, Config Templates, and DHCP Helper. The main area is titled "PnP Device Filters" and displays a table with columns: Name, Serial Number, Product ID, IP Address, Last Contact, Status, Profile, Config, and Details. A message "No data to display" is shown below the table. At the bottom right, there are buttons for "Show rows:" (set to 25), "Go to page" (set to 1), and navigation arrows. A red box highlights the text "convenient method to apply standard configurations" which is overlaid on the interface.

convenient method to apply  
standard configurations

Source: <https://www.youtube.com/watch?v=9wzmRvc0OWk&t=188s>, at 03:05

The screenshot shows a software interface for managing network devices. On the left, a vertical sidebar lists navigation options: Inventory, Unclaimed Devices, Profiles, Config Templates, and DHCP Helper. The 'DHCP Helper' option is selected and highlighted with a blue background.

**Plug-and-Play DHCP Helper**

The main content area contains a detailed description of the 'Plug-and-Play DHCP helper' feature, explaining its purpose for zero-touch commissioning of new devices. It notes that it enables users to have a fully self-contained plug-and-play solution on a portable system like a laptop, even in environments where IT infrastructure is unavailable. The feature supports temporary DHCP IP address assignment for directly attached or Layer-2 reachable devices.

**Instructions**

1. Assign static IP address 192.168.200.1/24 to a wired port on the PC.
2. Connect the PC wired port to a staging switch. The staging switch can be any switch that passes traffic between the PC and the PnP switches being commissioned.
3. Connect the PnP switches to the staging switch.
4. Power on all the PnP switches. If not new out of the box, reset the switches to factory default settings by depressing the express setup button as described in the hardware installation guide.
5. Enable the DHCP helper by toggling the switch below.

Disabled

**centralized factory talk network manager server**

Source: <https://www.youtube.com/watch?v=9wzmRvc0OWk&t=188s>, at 03:19

A diagram showing the setup for the 'Plug-and-Play DHCP Helper'. It consists of a PC (labeled 1) connected via a cable (2) to a staging switch (3). The staging switch is connected to multiple PnP switches (labeled PnP-Switch 1, PnP-Switch 2, ..., PnP-Switch n) (4).

Name\*  
OEM1-5700-site1

Configuration Template\*  
OEM-5700

Don't see the template you need? [Upload a new template](#)

Device Authentication

Disable  Enable

Startup Configuration  Running Configuration

Apply Configuration Template to

Pre-configure device before commissioning

Execute commands on device before commissioning

Upgrade device software

You can select up to 3 software images of different device types to be applied to the devices in the PnP Profile

s5700-universalk9-tar.152-7.E2.tar

Don't see the image you need? [Upload a new software image](#)

Source: <https://www.youtube.com/watch?v=9wzmRvc0OWk&t=188s>, at 03:41

FactoryTalk Network Manager

Edit PnP Profile

Template Content

```
!service nagle
no service pad
service tcp-keepalives-in
service tcp-keepalives-out
service timestamps debug datetime msec localtime show-timezone
service timestamps log datetime msec localtime show-timezone
service password-encryption
service unsupported-transceiver
hostname ${HOSTNAME}
boot-start-marker
boot-end-marker
!
logging buffered 1536
no logging console
enable secret 0 ${PWD_ENABLE}
!
username ${USER_ADMIN} privilege 15 secret 0 ${PWD_ADMIN}
aaa new-model
!
```

Attribute

the template can include variables such as device names

SUBNET\_MASK  
Value: 255.255.255.0  
Range:

GATEWAY  
Value: 10.17.60.1  
Range:

NATIVE\_VLAN\_ID  
Value: 999  
Range:

USER\_ADMIN  
Value: rockwell  
Range:

Source: <https://www.youtube.com/watch?v=9wzmRvc0OWk&t=188s>, at 03:51

	<p>SUBNET_MASK Value*: 255.255.255.0 Range <input type="checkbox"/></p> <p>GATEWAY Value*: 10.17.60.1 Range <input type="checkbox"/></p> <p>NATIVE_VLAN_ID Value*: 999 Range <input type="checkbox"/></p> <p>USER_ADMIN Value*: rockwell Range <input type="checkbox"/></p>
[1.3] identifying attribute data corresponding to the attribute field;	<p>Source: <a href="https://www.youtube.com/watch?v=9wzmRvc0OWk&amp;t=188s">https://www.youtube.com/watch?v=9wzmRvc0OWk&amp;t=188s</a>, at 03:51</p> <p>Further, to the extent this element is performed at least in part by Defendant's software source code, Plaintiff shall supplement these contentions pursuant to production of such source code by the Defendant.</p> <p>Defendant performs and/or induces others to perform the step of identifying attribute data corresponding to the attribute field.</p> <p>This element is infringed literally, or in the alternative, under the doctrine of equivalents.</p> <p>For example, FactoryTalk Network Manager determines the values ("attribute data") defined for the particular variable fields in the configuration template.</p>

FactoryTalk Network Manager

Edit PnP Profile

Template Content

```
I
service nagle
no service pad
service tcp-keepalives-in
service tcp-keepalives-out
service timestamps debug datetime msec localtime show-timezone
service timestamps log datetime msec localtime show-timezone
service password-encryption
service unsupported-transceiver
hostname ${HOSTNAME}
boot-start-marker
boot-end-marker
I
logging buffered 16384
no logging console
enable secret 0 ${PWD_ENABLE}
I
username ${USER_ADMIN} privilege 15 secret 0 ${PWD_ADMIN}
aaa new-model
I
```

SUBNET\_MASK  
Value\*: 256.255.255.0  
Range:

GATEWAY  
Value\*: 10.17.60.1  
Range:

NATIVE\_VLAN\_ID  
Value\*: 999  
Range:

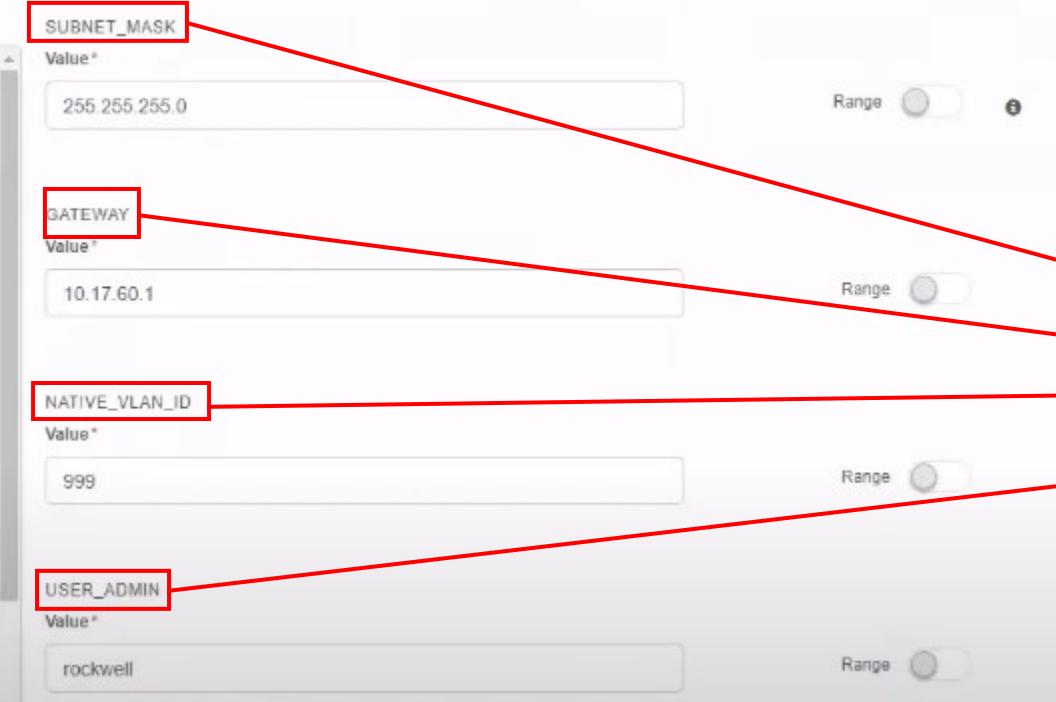
USER\_ADMIN  
Value\*: rockwell  
Range:

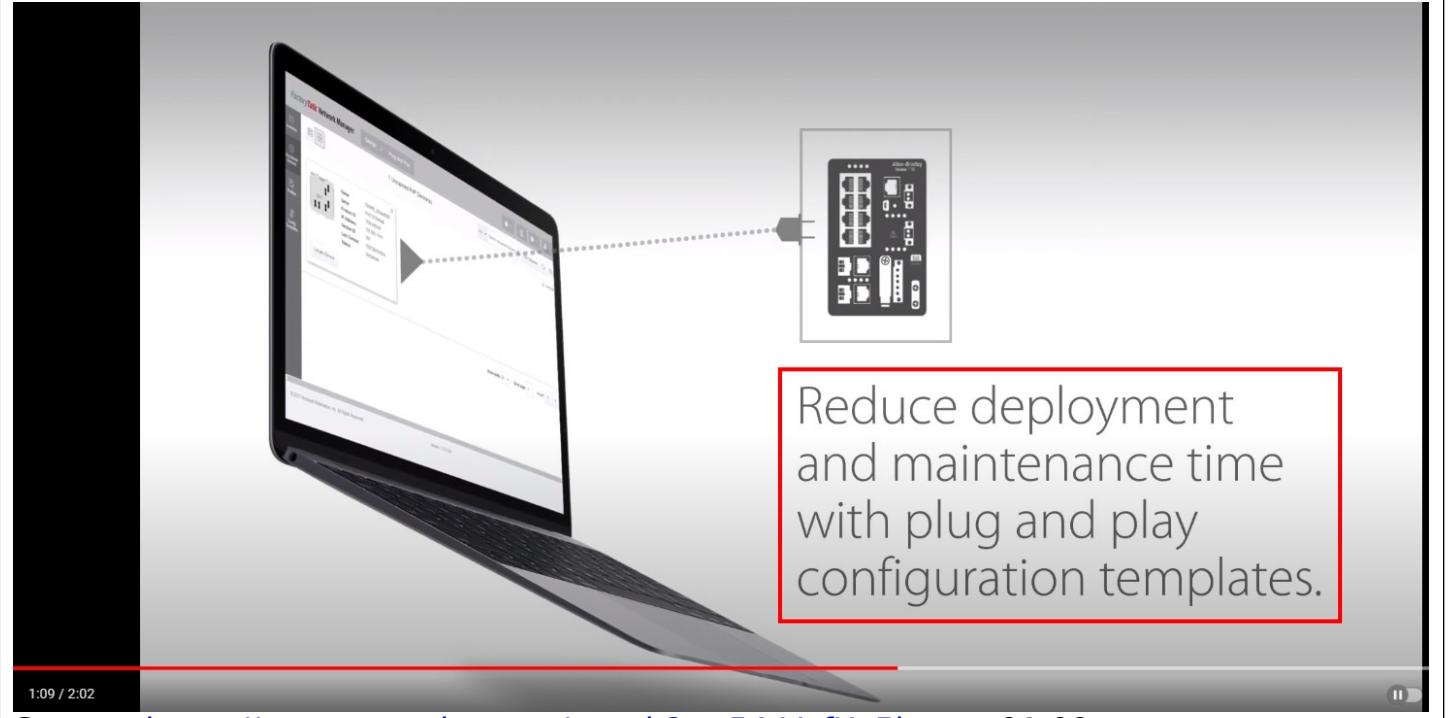
Attribute

Attributes

the template can include variables such as device names

Source: <https://www.youtube.com/watch?v=9wzmRvc0OWk&t=188s>, at 03:51

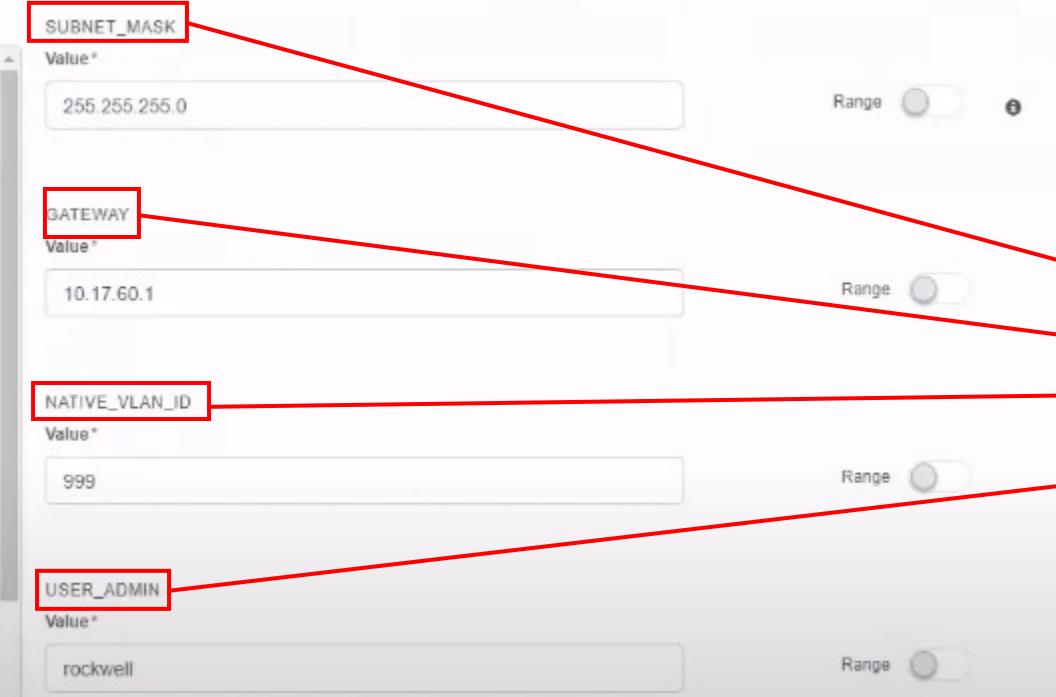
	 <p><b>SUBNET_MASK</b> Value * 255.255.255.0 Range <input type="checkbox"/></p> <p><b>GATEWAY</b> Value * 10.17.60.1 Range <input type="checkbox"/></p> <p><b>NATIVE_VLAN_ID</b> Value * 999 Range <input type="checkbox"/></p> <p><b>USER_ADMIN</b> Value * rockwell Range <input type="checkbox"/></p>	<p><b>Attribute fields</b></p> <p>Source: <a href="https://www.youtube.com/watch?v=9wzmRvc0OWk&amp;t=188s">https://www.youtube.com/watch?v=9wzmRvc0OWk&amp;t=188s</a>, at 03:51</p> <p>Further, to the extent this element is performed at least in part by Defendant's software source code, Plaintiff shall supplement these contentions pursuant to production of such source code by the Defendant.</p>
[1.4] generating the device-specific command for the network device using the retrieved command-format template and the identified attribute	<p>Defendant performs and induces others to perform the step of generating the device-specific command for the network device using the retrieved command-format template and the identified attribute data.</p> <p>This element is infringed literally, or in the alternative, under the doctrine of equivalents.</p> <p>For example, upon information and belief, FactoryTalk Network Manager generates</p>	

data; and	<p>device-specific commands that are based on the variables in the configuration template such that the specific configuration is provisioned to the network device.</p>  <p>Reduce deployment and maintenance time with plug and play configuration templates.</p> <p>Source: <a href="https://www.youtube.com/watch?v=54-VofXa5hg">https://www.youtube.com/watch?v=54-VofXa5hg</a>, at 01:09</p>
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The screenshot shows the FactoryTalk Network Manager interface for editing a PnP Profile. The main window is titled "Edit PnP Profile". The left pane displays "Template Content" which includes configuration lines such as "service nagle", "no service pad", and "hostname \${HOSTNAME}". A red box highlights the "hostname \${HOSTNAME}" line, with a callout labeled "Attribute" pointing to it. The right pane lists "TEMPLATE VALUES" with four entries: "SUBNET\_MASK" (Value: 255.255.255.0), "GATEWAY" (Value: 10.17.60.1), "NATIVE\_VLAN\_ID" (Value: 999), and "USER\_ADMIN" (Value: rockwell). Each entry has a "Range" toggle switch. A large red box labeled "Attributes" encloses the entire right pane. A text box in the bottom left of the template content area contains the text: "the template can include variables such as device names".

the template can include variables such as device names

Source: <https://www.youtube.com/watch?v=9wzmRvc0OWk&t=188s>, at 03:51

	 <p><b>Attribute fields</b></p> <p>Source: <a href="https://www.youtube.com/watch?v=9wzmRvc0OWk&amp;t=188s">https://www.youtube.com/watch?v=9wzmRvc0OWk&amp;t=188s</a>, at 03:51</p> <p>Further, to the extent this element is performed at least in part by Defendant's software source code, Plaintiff shall supplement these contentions pursuant to production of such source code by the Defendant.</p>
[1.5] providing the generated device-specific command to the network device.	<p>Defendant performs and induces others to perform the step of providing the generated device-specific command to the network device.</p> <p>This element is infringed literally, or in the alternative, under the doctrine of equivalents.</p> <p>For example, FactoryTalk Manager sends the generated device-specific commands in the specific configurations to the particular network device.</p>



Source: <https://www.youtube.com/watch?v=54-VofXa5hg>, at 01:09

Further, to the extent this element is performed at least in part by Defendant's software source code, Plaintiff shall supplement these contentions pursuant to production of such source code by the Defendant.

## 2. List of References

1. <https://www.rockwellautomation.com/en-us/products/software/factorytalk/maintenancesuite/network-manager.html>, last accessed on June 14, 2023.
2. [https://www.youtube.com/watch?v=QeFxDecn8ZM&list=PL3K\\_BigUXJ1Mf-1cAfwwMsHnrEwJGmFGZ&index=2](https://www.youtube.com/watch?v=QeFxDecn8ZM&list=PL3K_BigUXJ1Mf-1cAfwwMsHnrEwJGmFGZ&index=2), last accessed on June 14, 2023.
3. [https://literature.rockwellautomation.com/idc/groups/literature/documents/pp/ftalk-pp024\\_en-p.pdf](https://literature.rockwellautomation.com/idc/groups/literature/documents/pp/ftalk-pp024_en-p.pdf), last accessed on June 14, 2023.
4. [https://www.youtube.com/watch?v=9wzmRvc0OWk&list=PL3K\\_BigUXJ1Mf-1cAfwwMsHnrEwJGmFGZ&index=8](https://www.youtube.com/watch?v=9wzmRvc0OWk&list=PL3K_BigUXJ1Mf-1cAfwwMsHnrEwJGmFGZ&index=8), last accessed on June 14, 2023.